

CLAIMS:

What is claimed is:

1. A method of servicing secure transactions in a network, comprising:
establishing cryptographic parameters in a handshake engine;
5 servicing a transaction in a transaction server using unencrypted data;
utilizing an inline crypto engine and the cryptographic parameters to perform one
of encryption associated with transmitted data and decryption associated with
transmitted data.
- 10 2. The method of claim 1, wherein the inline crypto engine performs decryption on
the transmitted data to obtain the unencrypted data.
3. The method of claim 1, wherein the inline crypto engine performs encryption on
the unencrypted data to obtain the transmitted data.
4. The method of claim 1, wherein the establishing step includes handing off a
network connection from the transaction server to the handshake engine.
- 15 5. The method of claim 1, wherein the servicing step includes handing off a network
connection from the handshake engine to the transaction server.
6. The method of claim 1, wherein the establishing step includes performing a
Secure Sockets Layer (SSL) handshake procedure.

7. The method of claim 1, wherein the establishing step includes performing a Transport Layer Security handshake procedure.
8. The method of claim 1, wherein the transaction is returning at least one of a data file and streaming data.
- 5 9. The method of claim 8, wherein the streaming data includes at least one of audio data and video data.
10. The method of claim 8, wherein the data file includes at least one of a hypertext page and a structured data file.
- 10 11. The method of claim 8, wherein the transaction is submitting information taken from a form.
12. The method of claim 1, wherein the cryptographic parameters include at least one cryptographic key.
13. The method of claim 12, wherein the at least one cryptographic key includes at least one of a public key and a private key.
- 15 14. The method of claim 1, further comprising:
notifying the inline crypto engine of the cryptographic parameters.
15. The method of claim 12, further comprising:
receiving a request to establish the cryptographic parameters; and

responsive to receiving the request, performing the establishing step.

16. The method of claim 1, further comprising:
receiving the transmitted data.
17. The method of claim 1, further comprising:
5 transmitting the transmitted data.
18. The method of claim 1, wherein the unencrypted data is a request to perform the transaction.
19. A computer program product in at least one computer readable medium for servicing secure transactions in a network, comprising instructions for:
10 establishing cryptographic parameters in a handshake engine;
servicing a transaction in a transaction server using unencrypted data;
utilizing an inline crypto engine and the cryptographic parameters to perform one of encryption associated with transmitted data and decryption associated with transmitted data.
- 15 20. The computer program product of claim 19, wherein the inline crypto engine performs decryption on the transmitted data to obtain the unencrypted data.
21. The computer program product of claim 19, wherein the inline crypto engine performs encryption on the unencrypted data to obtain the transmitted data.

22. The computer program product of claim 19, wherein the instructions for establishing include instructions for handing off a network connection from the transaction server to the handshake engine.
23. The computer program product of claim 19, wherein the instructions for servicing include instructions for handing off a network connection from the handshake engine to the transaction server.
24. The computer program product of claim 19, wherein the instructions for establishing include instructions for performing a Secure Sockets Layer (SSL) handshake procedure.
25. The computer program product of claim 19, wherein the instructions for establishing include instructions for performing a Transport Layer Security handshake procedure.
26. The computer program product of claim 19, wherein the transaction is returning at least one of a data file and streaming data.
27. The computer program product of claim 26, wherein the streaming data includes at least one of audio data and video data.
28. The computer program product of claim 26, wherein the data file includes at least one of a hypertext page and a structured data file.

29. The computer program product of claim 26, wherein the transaction is submitting information taken from a form.
30. The computer program product of claim 19, wherein the cryptographic parameters include at least one cryptographic key.
- 5 31. The computer program product of claim 30, wherein the at least one cryptographic key includes at least one of a public key and a private key.
32. The computer program product of claim 19, further comprising instructions for: notifying the inline crypto engine of the cryptographic parameters.
- 10 33. The computer program product of claim 30, further comprising instructions for: receiving a request to establish the cryptographic parameters; and responsive to receiving the request, performing the establishing step.
34. The computer program product of claim 19, further comprising instructions for: receiving the transmitted data.
- 15 35. The computer program product of claim 19, further comprising instructions for: transmitting the transmitted data.
36. The computer program product of claim 19, wherein the unencrypted data is a request to perform the transaction.

37. The computer program product of claim 19, wherein the unencrypted data is a hypertext page.

38. A distributed data processing system for servicing secure transactions in a network, comprising:

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at least one inline crypto engine in communication with the network, wherein the at least one inline crypto engine includes at least one processor;

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at least one transaction server in communication with the at least one inline crypto engine, wherein the at least one transaction server includes at least one processor; and

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at least one handshake engine in communication with the at least one transaction server and the at least one inline crypto engine, wherein the at least one handshake engine includes at least one processor,

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wherein the at least one handshake engine establishes cryptographic parameters, the transaction server services a transaction using unencrypted data, and the at least one inline crypto engine utilizes the cryptographic parameters to perform one of encryption associated with the transmitted data and decryption associated with transmitted data.

39. The distributed data processing system of claim 38, wherein the at least one inline crypto engine performs decryption on the transmitted data to obtain the unencrypted data.

40. The distributed data processing system of claim 38, wherein the at least one inline crypto engine performs encryption on the unencrypted data to obtain the transmitted data.
- 5 41. The distributed data processing system of claim 38, wherein establishing the cryptographic parameters includes handing off a network connection from the at least one transaction server to the at least one handshake engine.
42. The distributed data processing system of claim 38, wherein servicing the transaction includes handing off a network connection from the at least one handshake engine to the at least one transaction server.
- 10 43. The distributed data processing system of claim 38, wherein establishing the cryptographic parameters includes performing a Secure Sockets Layer (SSL) handshake procedure.
44. The distributed data processing system of claim 38, wherein establishing the cryptographic parameters includes performing a Transport Layer Security
15 handshake procedure.
45. The distributed data processing system of claim 38, wherein the transaction is returning at least one of a data file and streaming data.
46. The distributed data processing system of claim 38, wherein the streaming data includes at least one of audio data and video data.

47. The distributed data processing system of claim 38, wherein the data file includes at least one of a hypertext page and a structured data file.
48. The method of claim 3, wherein the transaction is submitting information taken from a form.
- 5 49. The distributed data processing system of claim 38, wherein the cryptographic parameters include at least one cryptographic key.
50. The distributed data processing system of claim 49, wherein the at least one cryptographic key includes at least one of a public key and a private key.
- 10 51. The distributed data processing system of claim 38, wherein the at least one handshake engine notifies the inline crypto engine of the cryptographic parameters.
- 15 52. The distributed data processing system of claim 49, wherein the at least one transaction server receives a request to establish the cryptographic parameters; and responsive to the at least one transaction server's receiving the request, the at least one handshake engine performs the establishing step.
53. The distributed data processing system of claim 38, wherein the unencrypted data is a request to perform the transaction.
54. The distributed data processing system of claim 38, wherein the unencrypted data is a hypertext page.

55. The distributed data processing system of claim 38, wherein the at least one transaction server, the at least one inline handshake engine, and the at least one inline crypto engine operate concurrently.
56. The distributed data processing system of claim 38, wherein the at least one transaction server, the at least one inline handshake engine, and the at least one inline crypto engine operate asynchronously.